

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for providing an application ~~a development~~ interface for ~~the development of~~ a multi-user application executable on a distributed network system, comprising the steps of:

providing a object definition structure for an object utilized by the multi-user application, the object definition structure comprising a plurality of functional characteristics defining the object, and ~~[[a]]~~ an update schedule for one or more of the functional characteristics; and

automatically updating at least one of the plurality of functional characteristics in accordance with the update schedule during execution of the multi-user application on the distributed network . ~~[[;]]~~

2. (Currently Amended) The method of claim 1 wherein the object definition structure further comprises an error limited broadcast schedule for one or more of the plurality of functional characteristics, and further comprising the step of automatically updating a functional ~~characteristics~~ characteristic only when a change in the value of ~~[[a]]~~ the functional characteristic exceeds a respective error limit.

3. (Currently Amended) The method of claim 2 wherein each of the plurality of functional characteristics of the object are updated by transmitting the functional characteristics periodically based on the update schedule or in accordance with the error limited broadcast schedule to other objects utilized by the multi-user application.

4. The method of claim 3 further comprising the step of providing one or more filter functions for limiting propagation of the updated functional characteristics of the object to one or more of the other clients within the network.

5. (Currently amended) The method of claim 1 wherein the object definition structure for the object is determined by ~~a user~~ of the multi-user application, and wherein the object definition structure is utilized by a plurality of processes implemented by the multi-user application.

6. (Currently amended) The method of claim 5 wherein the distributed network system comprises a plurality of servers interconnected by a network backbone, each server hosting at least one local client, and each local client having at least one local participant.

7. (Currently amended) The method of claim 6 wherein the multi-user application comprises an interactive video game, and wherein the plurality of functional characteristics includes at least one of: network updates, graphical rendering updates, and physics based behavioral updates.

8. The method of claim 7 wherein the object comprises an interactive video game character, and the functional characteristics comprise at least one of: a position of the character, a size of the character, and an orientation of the character.

9. The method of claim 3 wherein the object is embodied within a data stream of audio/video data transmitted over the network.

10. The method of claim 6 wherein the multi-user application comprises an interactive communication program for the transmission of communication content among users of the network, and wherein the plurality of functional characteristics includes at least one of: communication updates, user privilege updates, and network interface updates.

11. The method of claim 10 wherein the object comprises one or more of: a streaming audio data set, a streaming video data set, and a text-based data set.

12. (Currently Amended) A system for ~~developing~~ a multi-user application executable by a plurality of client computers coupled in a communication network, comprising:

a first client providing an ~~[[a]]~~ object definition for an object utilized by the multi-user application, the object definition having a structure comprising a plurality of functional characteristics defining the object, and ~~[[a]]~~ an update schedule for one or more of the functional characteristics; and

a second client coupled to the first client and configured to manage data transmission between the first client and other clients coupled to the communication network and to filter object updates transmitted to the other clients, wherein the object updates of the functional characteristics of the object are automatically transmitted during execution of the multi-user application by the first client in accordance with the update schedule on the distributed network.

13. (Currently Amended) The system of claim 12 wherein the structure of the object definition ~~structure~~ further comprises an error limited broadcast schedule for one or more of the functional characteristics, and wherein the functional characteristics are only updated when a change in value of a functional characteristic exceeds a respective error limit.

14. (Currently Amended) The system of claim 13 wherein the functional characteristics of the object are updated by transmitting the functional characteristics periodically based on the update schedule or in accordance with the error limited broadcast schedule to other objects utilized by the multi-user application.

15. The system of claim 12 wherein the communication network comprises a plurality of servers interconnected by a network backbone, each server hosting at least one local client, and each local client having at least one local participant.

16. The system of claim 15 wherein one server of the plurality of servers controls transmission of data among the first client, second client and the other clients utilizing the object created by the first client.

17. The system of claim 16 wherein at least one of the other clients may update the object created by the first object.

18. The system of claim 12 wherein the object definition created by the first client is used by all functions and processes within the multi-user application that utilize the object.

IN THE DRAWINGS

Amendment to the Drawings:

The attached drawing sheet is included to add Figure 2E. A new drawing sheet is enclosed.